PUBLIC INTEREST REVIEW FOR GROUNDWATER APPLICATIONS

TO:	O: Water Rights Section						Date February 7, 2011							
FROM:	:	Groun	ndwater Se	ction	Marc No									
SUBJE	CT:	Appli	cation G	17448		Reviewer's Name Supersedes review of Date of Review(s)								
OAR 69 welfare, to deterr the presi	00-310-1 safety as nine who umption	30 (1) 7 and healt ther the criteria.	th as describe e presumption This review	nent shall property of the shall property of	resume that 537.525. D shed. OAR	t a propose epartment 690-310-	ed groundv staff revie 140 allows	water use will water use will the proposed of the agency poli	r applicat use be mo	ions un dified	nder OAF or condi	8 690-310 tioned to	0-140 meet	
A. <u>GEN</u> A1.			ek(s) <u>0.16</u>	_			(s) in the	umatilla R uad Map: St	liver			Umatilla		
A2. A3.	Propose Well an			n (12.6 Acr				March 1 – ark proposed			nder log	gid):		
Well	Logic		Applicant's Well #	Propos	ed Aquifer*	Prop Rate	(cfs)	Location (T/R-S QQ- 04N/29E-06 N	-Q)	Location, metes and bot 2250' N, 1200' E fr NW 650' S, 640' E fr W 1/2 c			cor S 36	
3 4 5														
	ım, CRB,	Bedrock												
Well 1	Well Elev ft msl 458	First Water ft bls	SWL ft bls	SWL Date 10/21/82	Well Depth (ft) 75	Seal Interval (ft) 0 - 56	Casing Intervals (ft) +1 - 56	Liner Intervals (ft)	ions eens	Well Yield (gpm)	Draw Down (ft)	Test Type Air		
Use data	from app	lication	for proposed	wells.										
A4.	Comme	ents: <u>T</u>	he well was	cased and	sealed thr	ough the	overly allu	vial aquifer.						
	Reques	ted disc	charge rate	is 71.8 gpr	n = 0.16 cf	s								
A5. 🗌	manage (Not all	ment of basin r	ules contain	er hydraulic such provi	ally connections.)	cted to sur	face water	rules relative t	are not,	activat	ent, classi ed by thi	ification a	and/or tion.	
A6. 🗌	Name of Comme	of admin ents: <u>Th</u> within	istrative are ne property a five-mile	a:, is just nor	th of and o	outside of	the Stage (ap(s) an aquif Gulch Critica The well is red water con	l Ground in not in	water the sa	Area. I	The well	is	

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B. GROUNDWATER AVAILABILITY CONSIDERATIONS, OAR 690-310-130, 400-010, 410-0070

period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130; b. will not or will likely be available in the amounts requested without injury to prior water rights. * This is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-10. c. will not or will likely to be available within the capacity of the groundwater resource; or d. will, if properly conditioned, avoid injury to existing groundwater rights or to the groundwater resource:	Base	ed upon available data, I have determined that ground water* for the proposed use:
is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-1 c. will not or will likely to be available within the capacity of the groundwater resource; or d. will, if properly conditioned, avoid injury to existing groundwater rights or to the groundwater resource: i. The permit should contain condition #(s) 7B - Interference, 7N - Annual WL (February/Mar Well Tag. Large measuring and reporting with flow meter on each well ii. The permit should be conditioned as indicated in item 2 below, iii. The permit should contain special condition(s) as indicated in item 3 below; a. Condition to allow groundwater production from no deeper than ft. below land surface. b. Condition to allow groundwater production only from the groundwater reservoir between approximately ft. and ft. c. Condition to allow production only from a single aquifer in the Columbia River Basalt groundwater reserve. d. Condition to allow production only from a single aquifer in the Columbia River Basalt groundwater reserve. e. Well reconstruction is necessary to accomplish one or more of the above conditions. The problems that at to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and a by the Groundwater Section. Describe injuryas related to water availability—that is likely to occur without well reconstruction (interfer senior water rights, not within the capacity of the resource, etc):	a.	is over appropriated, is not over appropriated, or is cannot be determined to be over appropriated during any period of the proposed use. * This finding is limited to the groundwater portion of the over-appropriation determination as prescribed in OAR 690-310-130;
d. will, if properly conditioned, avoid injury to existing groundwater rights or to the groundwater resource: i. The permit should contain condition #(s) TB - Interference, 7N - Annual WL (February/Mar Well Tag, Large measuring and reporting with flow meter on each well ii. The permit should be conditioned as indicated in item 2 below. iii. The permit should contain special condition(s) as indicated in item 3 below; a. Condition to allow groundwater production from no deeper than ft. below land surface. Condition to allow groundwater production only from no shallower than ft. below land surface. Condition to allow groundwater production only from the groundwater reservoir between approximately ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and ft. and	b.	□ will not <i>or</i> □ will likely be available in the amounts requested without injury to prior water rights. * This finding is limited to the groundwater portion of the injury determination as prescribed in OAR 690-310-130;
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a. Condition to allow groundwater production from no deeper than	d.	ii. The permit should be conditioned as indicated in item 2 below.
b. Condition to allow groundwater production from no shallower than		
c. Condition to allow groundwater production only from the groundwater reservoir between approximately ft. and ft. and land surface; d. Condition to allow production only from a single aquifer in the Columbia River Basalt groundwater reserve. Well reconstruction is necessary to accomplish one or more of the above conditions. The problems that at to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and a by the Groundwater Section. Describe injury —as related to water availability—that is likely to occur without well reconstruction (interfer senior water rights, not within the capacity of the resource, etc):	a.	Condition to allow groundwater production from no deeper than ft. below land surface;
 d.	b.	Condition to allow groundwater production from no shallower than ft. below land surface;
e.	c.	Condition to allow groundwater production only from the groundwater reservoir between approximately ft. and ft. below land surface;
to occur with this use and without reconstructing are cited below. Without reconstruction, I recommend withholding issuance of the permit until evidence of well reconstruction is filed with the Department and a by the Groundwater Section. Describe injury —as related to water availability—that is likely to occur without well reconstruction (interfer senior water rights, not within the capacity of the resource, etc): Groundwater availability remarks: Nearby wells completed in the basalts are closer to 200 feet deep with wells.	d.	☐ Condition to allow production only from a single aquifer in the Columbia River Basalt groundwater reservoir;
Senior water rights, not within the capacity of the resource, etc): Groundwater availability remarks: Nearby wells completed in the basalts are closer to 200 feet deep with w	e.	withholding issuance of the permit until evidence of well reconstruction is filed with the Department and approved
		Describe injury –as related to water availability– that is likely to occur without well reconstruction (interference w/ senior water rights, not within the capacity of the resource, etc):
	-	
	-	
	-	

C. GROUND WATER/SURFACE WATER CONSIDERATIONS, OAR 690-09-040

C1. **690-09-040** (1): Evaluation of aquifer confinement:

Wel l	Aquifer or Proposed Aquifer	Confined	Unconfined
1	CRB	\boxtimes	

Basis for aquifer confinement evaluation:	Groundwater level rose above where it was encountered in the well and the
depth of well seal.	
-	

C2. **690-09-040** (2) (3): Evaluation of distance to, and hydraulic connection with, surface water sources. All wells located a horizontal distance less than ½ mile from a surface water source that produce water from an unconfined aquifer shall be assumed to be hydraulically connected to the surface water source. Include in this table any streams located beyond one mile that are evaluated for PSI.

Well	SW #	Surface Water Name	GW Elev ft msl	SW Elev ft msl	Distance (ft)	Hydraulically Connected? YES NO ASSUMED	Potential for Subst. Interfer. Assumed? YES NO
1	1						

Basis for aquifer hydraulic connection evaluation	: There are no streams within a one-mile radius of the well.	<u>I here are</u>
several canal and/or ditches. The Hermiston Ditc	ch is mapped as intermittent.	
		,

C3a. **690-09-040** (4): Evaluation of stream impacts for <u>each well</u> that has been determined or assumed to be **hydraulically** connected and less than 1 mile from a surface water source. Limit evaluation to instream rights and minimum stream flows that are pertinent to that surface water source, and not lower SW sources to which the stream under evaluation is tributary. Compare the requested rate against the 1% of 80% *natural* flow for the pertinent Water Availability Basin (WAB). If Q is not distributed by well, use full rate for each well. Any checked \boxtimes box indicates the well is assumed to have the potential to cause PSI.

Well	SW #	Well < 1/4 mile?	Qw > 5 cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?

C3b. **690-09-040 (4):** Evaluation of stream impacts by total appropriation for all wells determined or assumed to be **hydraulically connected and less than 1 mile** from a surface water source. **Complete only if Q is distributed among wells.** Otherwise same evaluation and limitations apply as in C3a above.

SW #		w > cfs?	Instream Water Right ID	Instream Water Right Q (cfs)	Qw > 1% ISWR?	80% Natural Flow (cfs)	Qw > 1% of 80% Natural Flow?	Interference @ 30 days (%)	Potential for Subst. Interfer. Assumed?
Comments: _	NA								

C4a. **690-09-040 (5):** Estimated impacts on **hydraulically connected surface water sources greater than one mile** as a percentage of the proposed pumping rate. Limit evaluation to the effects that will occur up to one year after pumping begins. This table encompasses the considerations required by 09-040 (5)(a), (b), (c) and (d), which are not included on this form. Use additional sheets if calculated flows from more than one WAB are required.

Non D:	istributed	Walls											
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
	ence CFS												
	uted Well			3.6		3.6							_
Well	SW#	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfere	ence CFS												
		%	%	%	%	%	%	%	%	%	%	%	%
Well Q	as CFS												
Interfere	ence CFS												
(4) =	. 17 . 6												
	tal Interf.												
	% Nat. Q												
$(\mathbf{C}) = 1$	% Nat. Q												
(D) = ((A) > (C)	√	√	√	√	✓	√	✓	√	√	√	✓	√
	/ B) x 100	%	%	%	%	%	%	%	%	%	%	%	%

(A) = total interference as CFS; (B) = WAB calculated natural flow at 80% exceed. as CFS; (C) = 1% of calculated natural flow at 80% exceed. as CFS; (D) = highlight the checkmark for each month where (A) is greater than (C); (E) = total interference divided by 80% flow as percentage.

Basis for impact evaluation:
690-09-040 (5) (b) The potential to impair or detrimentally affect the public interest is to be determined by the Water Rights Section.
☐ If properly conditioned , the surface water source(s) can be adequately protected from interference, and/or groundwater use under this permit can be regulated if it is found to substantially interfere with surface water: i. ☐ The permit should contain condition #(s)
 i. The permit should contain condition #(s) ii. The permit should contain special condition(s) as indicated in "Remarks" below;
W / GW Remarks and Conditions
References Used:

Date: February 7, 2011

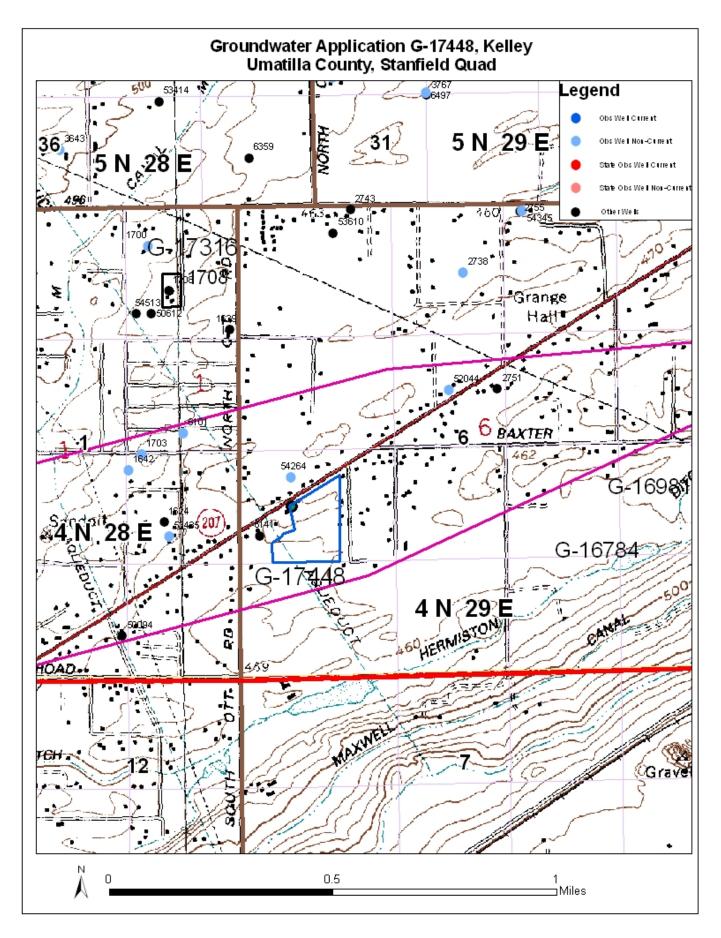
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D. WELL CONSTRUCTION, OAR 690-200

D1.	Well #:	Logid:
D2.	a.	LL does not meet current well construction standards based upon: view of the well log; eld inspection by
D3.	a.	LL construction deficiency: onstitutes a health threat under Division 200 rules; ommingles water from more than one groundwater reservoir; ermits the loss of artesian head; ermits the de-watering of one or more groundwater reservoirs; ther: (specify)
D4.	THE WEI	LL construction deficiency is described as follows:
D5.	THE WEI	original construction or most recent modification. b. I don't know if it met standards at the time of construction.
	is filed with	the Enforcement Section. I recommend withholding issuance of the permit until evidence of well reconstruction in the Department and approved by the Enforcement Section and the Groundwater Section.
		TO BE COMPLETED BY ENFORCEMENT PERSONNEL ruction deficiency has been corrected by the following actions:
D8. [, 200 Enforcement Section Signature) Water Rights Section (attach well reconstruction logs to this page).



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